

INCH-POUND

ATPD 2233

9 January 1998

SUPERSEDING

MIL-E-62484C(AT)

25 January 1990

PURCHASE DESCRIPTION

EARTHMOVER, ARMORED COMBAT, M9 PROCESSING FOR SHIPMENT AND STORAGE OF

This purchase description is approved for use by the U.S. Army Tank-Automotive Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This purchase description covers processing of the Earthmover, Armored Combat, M9 for domestic and overseas shipment and storage.

1.2 Classification. Processing shall be of the following levels of protection (see 3.4.2 and 6.2).

- | | |
|---------|---|
| Level A | - Maximum protection, called Level A, is processing for domestic and overseas shipment and any outside storage in excess of 90 days from the date of processing (periodic care and additional preservation is required during storage). |
| Level B | - Intermediate protection, called Level B, is processing for immediate use shipment and for domestic and overseas shipment (excluding open deck loading) and for any storage not to exceed 90 days from the date of processing. |

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

AMSC N/A

AREA PACK

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this purchase description. This section does not include documents cited in other sections of this purchase description or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirement documents cited in sections 3 and 4 of this purchase description, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

- | | |
|------------|--|
| A-A-203 | - Paper Kraft, Wrapping |
| A-A-374 | - Sodium Bicarbonate, Technical. |
| A-A-883 | - Tape, Pressure Sensitive Adhesive, Masking. |
| A-A-52577 | - Fuel Oil, Diesel, for Posts, Camps, and Stations. |
| A-A-52624 | - Antifreeze, Multi-Engine Type. |
| A-A-55057 | - Panels, Wood/Wood Based; Construction and Decorative. |
| P-D-220 | - Detergent, General Purpose. |
| P-D-680 | - Dry Cleaning Solvent. |
| MMM-A-260 | - Adhesive, Water-Resistant. |
| PPP-B-601 | - Box, Wood, Cleated Plywood. |
| PPP-B-621 | - Box, Wood, Nailed and Lock Corner. |
| PPP-C-1752 | - Cushioning Material, Packaging, (Unicellular Polyethylene Foam, Flexible). |

MILITARY

- | | |
|-----------|---|
| MIL-B-117 | - Bags, Sleeves and Tubing - Interior Packaging. |
| MIL-B-121 | - Barrier Material, Grease Proofed, Waterproofed, Flexible. |

ATPD 2233

MIL-C-450	- Coating - Compound, Bituminous Solvent Type, Black (for Ammunition).
MIL-PRF-2105	- Lubricating Oil, Gear, Multipurpose.
MIL-C-5501	- Cap and Plug, Protective, Dust and Moisture Seal, General Specification For.
MIL-PRF-10924	- Grease, Automotive and Artillery.
MIL-PRF-16173	- Corrosion Preventive Compound, Solvent Cutback, Cold-Application.
MIL-D-16791	- Detergent, General Purpose (Liquid, Nonionic).
MIL-L-21260	- Lubricating Oil, Internal Combustion Engine, Preservative and Break-in.
MIL-T-22085	- Tape, Adhesive, Preservation And Sealing.
MIL-P-46002	- Preservative Oil, Contact and Volatile Corrosion-Inhibited.
MIL-T-50036	- Talc, Technical, T1 and T3.
MIL-D-81298	- Dye, Liquid, For The Detection of Leaks in Aircraft Fuel Systems.

STANDARDS

MILITARY

MIL-STD-129	- Marking for Shipment and Storage.
MIL-STD-1186	- Cushioning, Anchoring, Bracing, Blocking, and Waterproofing; with Appropriate Test Methods.
MIL-STD-2073	- Military Packaging, Standard Practice for.
MS3367	- Strap, Tiedown, Electrical Components.
MS21316-56	- Thumbscrew (Shouldered), Flat Point, Carbon Steel, Cadmium.
MS51525	- Adapter, Straight, Tube To Boss.
MS51850-64	- Screw, Tapping, - Thread Forming, Type AB, Hexagon Head, Slotted.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

ATPD 2233

DEPARTMENT OF TRANSPORTATION (DoT)

Hazardous Materials Regulations

(Applications for copies should be addressed to the Department of Transportation, Hazardous Materials Regulations Board, Washington, DC 20402.)

DRAWINGS

ARMY

12331969	- Window.
12331973	- Strip.
12335057	- Window.
12357232-2	- Coupler, Quick Disconnect.
12357237-2	- Nipple, Quick Disconnect.
12362119	- Cover, Canopy.
12362126	- Support, Canopy.
12362132	- Window.
12362135	- Installation, Canopy.
12362136	- Strip.
12362137	- Strip.
13211E9018-8	- Elbow, Tube to Boss.
13211E9579	- Support, Canopy
13214E2478	- Hose Assembly.

PUBLICATIONS

LUBRICATION ORDERS

LO 5-2350-262-12	- Armored Combat Earthmover (ACE)
------------------	-----------------------------------

PURCHASE DESCRIPTIONS

ATPD 2241	- Vehicles, Wheeled, Preparation for Storage and Shipment.
-----------	--

TECHNICAL MANUALS

TM 5-2350-262-10	- Operator's Manual for Armored Combat Earthmover (ACE), M9.
------------------	--

ATPD 2233

- | | |
|---------------------|--|
| TM 5-2350-262-10-HR | - Hand Receipt Covering Content of Components of End Item (COEI), Basic Issue Item (BII), and Additional Authorization List (AAL) for Armored Combat Earthmover (ACE), M9. |
| TM 55-2350-262-14 | - Transportability Guidance, M9. |

(Copies of these publications are available from the U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- | | |
|------------|--|
| ASTM D3953 | - Strapping, Steel and Seals, Standard Specification for (DoD Adopted). |
| ASTM D5118 | - Fabrication of Fiberboard Shipping Boxes, Standard Specification for (DoD Adopted). |
| ASTM D5486 | - Pressure Sensitive Tape for Packaging, Box Closure, and Sealing, Standard Specification for (DoD Adopted). |

(Application for copies of ASTM publications may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

ASSOCIATION OF AMERICAN RAILROADS

- | | |
|---------------|--|
| Section No. 6 | - Rules Governing the Loading of Department of Defense Material on Open Top Cars |
|---------------|--|

(Application for copies should be addressed to the Association of American Railroads, 1920 L Street N.W., Washington, DC 20036.)

2.4 Order of precedence. In the event of a conflict between the text of this purchase description and the references cited herein (except for associated detailed specification, specification sheets or MS standards), the text of this document takes precedence. Nothing in

this purchase description, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. Unless otherwise specified, one of the first 10 production processed vehicles shall be subjected to first article inspection (see 4.3 and 6.2). A separate processed vehicle shall be subjected to first article inspection for each level of protection specified. First article inspection vehicles, properly marked with identifying information, shall be representative of vehicles to be furnished to the Government. All subsequent processed vehicles delivered to the Government shall conform to the respective sample in all pertinent physical and performance attributes. The Government representative shall select the vehicle(s) to be inspected.

3.2 Equipment. Equipment for processing of the vehicle shall be as specified herein. Equipment not specified herein shall be sufficient and safe when used for the intended purpose.

3.2.1 Preservative container assembly. A preservative container assembly shall be provided for Level A processing of the fuel system (see figure 1).

3.2.1.1 Preservative container. A preservative container with valves for flow regulation, fittings and a hose with a fitting for connection to the filter assembly shall be provided for Level A processing of the fuel system (see figure 1).

3.2.2 Air restrictor plate. An air restrictor plate shall be provided for use in processing of the fuel system and combustion chambers for Level A. The air restrictor plate shall be sufficient to prevent the flow of air at the engine air intake (see figure 2).

3.2.3 Atomizer. An atomizer shall be provided for Level A processing of lubricant gage openings, air intake opening, and exhaust opening.

3.3 Materials. Materials used for processing for the vehicle shall be selected which are sufficient and safe when used for the intended purpose.

3.3.1 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally, preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs (see 6.3.2).

3.3.2 Detergent solution. Detergent for cleaning of non-critical surfaces shall be in accordance with P-D-220. Detergent shall be in solution with clean water.

3.3.3 Preservatives. Preservative for fuel system processing (Level A) shall be in accordance with grade 10W of MIL-L-21260. Preservative for coating, exterior unpainted, unplated, ferrous surfaces shall be in accordance with grade 4 of MIL-PRF-16173. Interior component surfaces shall be preserved with the operational fluids and lubricants specified in LO 5-2350-262-12. Preservative for the battery box shall conform to composition G, Type II of MIL-C-450.

3.3.3.1 Preservative dye. When first article provisions are required by the procuring activity, an oil soluble red dye conforming to MIL-D-81298 shall be added to the preservative oil used for fuel line processing. The concentration of dye shall be sufficient to impart a marked coloring of the oil. Preservative dye shall be used for first article and as required for inspection only (see 3.5).

3.3.4 Wraps and barrier material. Barrier material and wraps for packaging shall be in accordance with Type II, Grade A, Class 2 of MIL-B-121.

3.3.5 Bags. Bags shall conform to Style 2, Type I, Class B (6 MIL) of MIL-B-117 for preservation of items in accordance with MIL-STD-2073-1.

3.3.6 Cushioning. Cushioning materials shall be in accordance with PPP-C-1752. Cushioning shall conform to MIL-STD-1186.

3.3.7 Blocking and bracing. Fiberboard material for blocking and bracing shall be in accordance with Type CF and Class WR of ASTM D5118, the domestic class of fiberboard may be used within bags in lieu of the water-resistance class. Lumber shall be in accordance with standard commercial practices. Plywood shall be in accordance with A-A-55057. All blocking and bracing shall conform to MIL-STD-1186.

3.3.8 Containers. Fiberboard boxes for unit packaging shall be in accordance with Type CF and Class WR of ASTM D5118. The domestic class of box may be used within bags in lieu of the weather-resistance class. Boxes for exterior packing and stowage shall be in accordance with overseas types of PPP-B-601 or overseas types of PPP-B-621.

3.3.9 Tape and closure material. Tape shall be in accordance with Type II of MIL-T-22085. Containers shall be closed in accordance with closure requirements of the box specifications. Caps and plugs shall be in accordance with MIL-C-5501.

3.3.10 Ventilation screens. Ventilation screens (4 pieces) shall be provided for Level A and Level B processing of the vehicle (see figures 3 and 4). Screens shall be constructed of galvanized wire fabric, 4 x 4 mesh.

ATPD 2233

3.4 Procedures and operations. Procedures and operations consist of general requirements and special requirements. General requirements shall apply to all levels of protection (see 3.4.1). Special requirements shall apply for the specified level of protection (see 3.4.2 and 4.3.2.3).

3.4.1 General requirements. DA Form 2258 shall be completed to record the preservation applied and deprocessing required for each vehicle. Completed forms shall be sealed within a bag conforming to Type I, Class B, Style 2 of MIL-B-117 and affixed within the drivers compartment.

3.4.1.1 Disassembly. Except as specified herein, each vehicle shall be prepared for shipment and storage in a completely assembled condition. Equipment shall be installed and all adjustments and repairs shall be completed to allow the vehicle to be operated and placed into service with a minimum of delay consistent with the specified level of protection.

3.4.1.1.1 Disassembly for normal transport. Unless otherwise specified (see 6.2), the items listed in Tables I and II shall be removed from the vehicle. Disassembly shall be in accordance with the applicable technical manuals. Items removed from the vehicle for normal transport shall be configured for packaging, stowage, and securement aboard the vehicle.

3.4.1.1.2 Disassembly for special transport modes. When specified (see 6.2), additional disassembly shall be in accordance with TM 55-2350-262-14.

3.4.1.1.3 Disassembly for component processing. Components specified in Tables I and II shall be disassembled for processing in accordance with the applicable technical manuals. Except as specified herein, selected components disassembled for processing shall be reassembled in accordance with the applicable technical manuals.

TABLE I. Preservation and Stowage of Components of End Item.

1. <u>Components of End Item (COEI).</u>			
Identification Number	Item Description	Method of Preservation	Stowage Location Figure 7
3830-01-184-4776	Bit End, R. H.	20	A
3830-01-184-4775	Bit End, L. H.	20	A
12362135	Kit, Canopy	See Note 1/ Below	A
12367559-1	Extension, Apron, L. H.	20	A
12367559-2	Extension, Apron, R. H.	20	A
12367560-1	Extension, Dozer, L. H.	20	A
12367560-2	Extension, Dozer, R. H.	20	A
5305-01-194-3001	Screw, Cap, Hexagon (8)	31	A
5310-00-809-8541	Washer, Flat (8)	31	A

TABLE I. Preservation and Stowage of Components of End Item - Continued.

A. CANOPY ASSEMBLY INSTALLATION COMPONENTS:			
Identification Number	Item Description	Method of Preservation	Stowage Location Figure 7
MS21316-56	Thumbscrew (2)	31	
MS51850-64	Screw, Tapping (11)	31	
MS51850-66	Screw, Tapping (1)	31	
12331969	Window	10	
12331973	Strip	31	
12335057	Window	10	
12362119	Cover, Canopy	10	
12362126	Support, Canopy	10	
12362132	Window	10	
12362135	Installation Drawing	31	
12362136	Strip	31	
12362137	Strip	31	
13211E9579	Support, Canopy	10	

TABLE II. Preservation and Stowage of Disassembled Items Shipped with Vehicle.

Preservation and Stowage of Disassembled Items Shipped with the Vehicle.			
Identification Number	Item Description	Method of Preservation	Stowage Location Figure 7
2540-00-065-1922	Arm, Windshield Wiper	31	D
2540-01-183-6840	Blade, Windshield Wiper.	31	D
5340-01-183-8469	Cover, Access	20	E
5340-01-183-8468	Cover, Access	20	E
5340-01-183-8467	Cover, Access	20	E
5340-01-183-8466	Cover, Access	20	E

3.4.1.2 Cleaning and drying. Unless otherwise specified, each vehicle and each component item shall be cleaned by selected cleaning processes in accordance with MIL-STD-2073-1 (see 6.2). Materials, equipment, and processes shall be selected which are sufficient and safe when used for the intended purpose. Liquids used for cleaning shall not be allowed to remain in undrained areas of the vehicle or components for periods exceeding 24 hours. Any item damaged by cleaning shall be replaced or repaired.

3.4.1.2.1 Exterior of vehicle. Exterior surfaces of the vehicle shall be cleaned with a solution of water and detergent conforming to P-D-220, or Type I, of MIL-D-16791. After cleaning, surfaces shall be rinsed with clean water. The cleaning process shall not permit liquid to enter interior compartments and cause damage or deterioration. If pressure spraying equipment is used in the cleaning process, the control regulation of the spraying equipment and the method of spray cleaning shall be sufficient to prevent damage.

ATPD 2233

3.4.1.2.2 Drivers compartment. Interior surfaces of the drivers compartment shall be cleaned with a solution of water and detergent conforming to P-D-220, or Type I of MIL-D-16791. After cleaning, surface shall be rinsed with clean water. The cleaning process shall not permit liquid to enter the instruments, connections, or other components susceptible to water damage. The cleaning process shall not permit the cushioning materials of the driver's seat to absorb liquid.

3.4.1.2.3 Engine compartment. The interior of the engine compartment shall be cleaned with a solution of water and detergent conforming to P-D-220, or Type I of MIL-D-16791. After cleaning, surfaces shall be rinsed with clean water. The cleaning process shall not allow liquid to enter the steering unit, winch, connections, or other components susceptible to water damage.

3.4.1.2.4 Steering unit and winch compartment. The steering unit and winch compartment shall be cleaned with a solution of water and detergent conforming to P-D-220, or Type I of MIL-D-16791. After cleaning, surfaces shall be rinsed with clean water. The cleaning process shall not allow liquid to enter the steering unit, winch, connections, or other components susceptible to water damage.

3.4.1.2.5 Vehicle components. Unless otherwise specified, component systems containing operational fluids shall be examined for evidence of contamination (see 6.2). If contaminants are found, corrective maintenance shall be performed in accordance with the applicable technical manual. The exterior surface of vehicle components shall be cleaned by selected cleaning processes as specified in MIL-STD-2073-1. The cleaning process shall include each component which is subject to contamination.

3.4.1.2.5.1 Battery supports, retainers, terminals and connections. Battery supports, retainers, terminals, and connections shall be cleaned with a solution of water and sodium bicarbonate conforming to A-A-374. After cleaning, surfaces shall be rinsed with clean water. Batteries and electrolyte shall be processed in accordance with the specified level of protection (see 3.4.2 for special requirements).

3.4.1.2.5.2 Cooling system. The cooling system shall be examined for evidence of rust and contamination. The cooling system shall be flushed and drained as required for cleaning.

3.4.1.2.5.3 Hydraulic tank and transfer case breathers. The hydraulic tank and transfer case breathers shall be removed and cleaned with dry cleaning solution conforming to P-D-680.

3.4.1.2.5.4 Steering unit, final drive and winch breathers. The steering unit, final drive and winch breathers shall be removed and cleaned with dry cleaning solution conforming to P-D-680.

3.4.1.2.6 Drying. Unless otherwise specified, the cleaned vehicle and component parts shall be dried by selected drying processes as specified in MIL-STD-2073-1 (see 6.2). Drying processes shall be completed immediately after cleaning. Liquids used for cleaning shall not be allowed to remain in undrained areas of the vehicle or components for periods exceeding 24 hours.

3.4.1.2.6.1 Breathers. Breathers for the hydraulic tank, transfer case, steering unit, final drive, and winch shall be dried in accordance with MIL-STD-2073-1. Breathers shall be reinstalled after cleaning and drying.

3.4.1.2.6.2 Vehicle components containing fluids. Component systems containing operational fluids which are flushed for cleaning shall be refilled with operational fluid. Drying is not required for interior surfaces of these component systems.

3.4.1.3 Preservation. Unless otherwise specified, each vehicle surface and component which is susceptible to corrosion or deterioration by environmental conditions shall be protected by application of selected preservatives in accordance with MIL-STD-2073-1 (see 6.2). Preservative materials, equipment, and processes shall be selected which are sufficient and safe when used for the purpose intended. Selected preservatives shall be compatible with the item composition and intended use. Preservation shall be completed immediately after cleaning and drying. Any item damaged by preservation shall be replaced or repaired.

3.4.1.3.1 Disassembled and uninstalled items. The Components of End Item (COEI), disassembled items and Basic Issue Items (BII) shall be protected by methods of preservation in accordance with MIL-STD-2073-1 (see Tables I, II, and III).

3.4.1.3.2 Bilge pump. Bilge pump shall be clean and free of contaminants. Surfaces of the bilge pump shall not be coated with preservative.

3.4.1.3.3 Seals. The rear door seal, hatch cover seal, access plate seals, apron seal, and windshield extrusion shall be coated with talc conforming to MIL-T-50036 prior to closure.

Table III. Preservation and Stowage of Basic Issue Items.

2. <u>Basic Issue Items (BII).</u>			
Identification Number	Item Description	Method of Preservation	Stowage Location Figure 7
8105-01-185-5932	Bag, Canopy Stowage W/O Cont.	31	B
8105-01-185-0514	Bag, Pin Stowage W/O Cont.	31	B
8105-01-185-0515	Bag, Rivet Stowage W/O Cont.	31	B
5140-00-473-6256	Bag, Tool W/O Cont.	31	B
8105-01-185-5933	Bag, Window W/O Cont.	31	B
7510-00-889-3494	Binder, Loose Leaf	31	C
DA Forms 2408, 2409	Binder, Loose Leaf	31	C
1005-00-722-5087	Brush	32	B
5340-01-113-0879	Cap	32	B
7520-00-559-9618	Case, O & M Manuals W/O Cont.	31	B
4010-01-185-0406	Chain Assembly	10	B
5120-00-224-1390	Crowbar	10	B
2530-01-075-8292	Drift Pin, Track	20	B
5120-00-227-8074	Extension, Socket Wrench	32	B
4210-00-555-8837	Extinguisher, Fire Cylinder, W/Brkt	32	B
5110-00-241-7675	File, Type XIX, Style A, ¾ x 8 LG	32	B
5120-00-605-3926	Fixture, Track Connecting	20	B
5120-00-265-7462	Hammer, Double Faced, 6 LB.	20	B
5120-00-061-8543	Hammer, Hand, Ball Peen	20	B
5120-00-288-6574	Handle, Mattock	10	B
5120-00-221-7959	Handle, Socket, ¾ Drive	32	B
5120-00-236-7590	Handle, Socket Wrench	32	B
5120-00-230-6385	Handle, Socket Wrench	32	B
5120-00-243-2395	Hoe, Mattock Pick	20	B
TM 5-2350-262-10-HR	HR Manual	31	B
5120-00-198-5390	Key, Socket Head Screw	32	B
6545-00-922-1200	Kit, First Aid	32	B
6540-00-044-6914	Lamp, Incandescent	32	B
6230-00-558-5880	Light Extension	32	B
4930-01-298-3979	Grease Gun, Pneumatic	32	B
LO 5-2350-262-12	Lube Order	31	B
TM 5-2350-262-10	Operator Manual	31	B
5340-00-912-4086	Padlock Set	32	B
5315-01-186-7991	Pin, Alignment Armor	32	B

Table III. Preservation and Stowage of BII-Continued.

Identification Number	Item Description	Method of Preservation	Stowage Location Figure 7
5365-01-186-8009	Plate	32	B
5120-00-223-7396	Pliers, Slip Joint	32	B
5120-00-293-3509	Punch	32	B
5320-00-051-8618	Rivet, Solid	32	B
2530-01-125-5771	Roll, Apron Seal	31	B
5120-00-182-9656	Rule, Stl. Machinists	32	B
5120-00-234-8912	Screwdriver, Crosstip	32	B
5120-00-278-1283	Screwdriver, Flat Tip	32	B
5330-01-185-0491	Seal, Apron Center	31	B
5330-01-185-0492	Seal, Apron End	31	B
5120-00-293-3336	Shovel, Hand	10	B
5120-00-242-3349	Socket, ½ Drive, ¾	32	B
5120-00-935-7427	Socket, ½ Drive, 1-1/16	32	B
5120-00-239-0021	Socket, ¾ Drive, 1-1/8	32	B
5120-00-239-0094	Socket, ¾ Drive, 1-1/2	32	B
5120-00-189-7932	Socket, ½ Drive, 9/16	32	B
5120-00-189-7946	Socket, ½ Drive, 5/8	32	B
4220-00-276-8296	Vest, Life Preserver	31	B
9905-00-534-8376	Warning Device	10	B
5120-00-449-8083	Wrench, Adjustable	32	B
5120-00-228-9513	Wrench, Comb., .94	32	B
5120-00-228-9509	Wrench, Comb., .69	32	B
5120-00-228-9512	Wrench, Comb., .88	32	B
5120-00-228-9514	Wrench, Comb., 1.00	32	B
5120-00-228-9510	Wrench, Comb., .75	32	B
5120-00-228-9517	Wrench, Comb., 1.25	32	B
5120-01-229-9134	Wrench Spanner	32	B
5120-00-423-6728	Wrench, Adjustable	32	B

3.4.1.3.4 Winch cable. The winch cable shall be extended and coated with preservative in accordance with Grade 1 of MIL-PRF-16173. After drying, the cable shall be retracted to the storage position.

ATPD 2233

3.4.1.3.5 Backrest and seat. Immediately after drying, cushioned components for the backrest and seat shall be covered with paper having a minimum basis weight of 40 pounds in accordance with A-A-203. Paper shall be secured with tape in accordance with Type II of A-A-883.

3.4.1.3.6 Windshield and motor. The windshield and motor shall be protected with plywood in accordance with A-A-55057. Plywood shall be of ½ inch thickness and shall be suitable for exterior exposure. The cover shall be secured to the windshield with strapping in accordance with Type I, Finish B, ¾ X 0.035 inches of ASTM D3953. Fiberboard strips, Class WR shall be placed between the windshield and the strapping. The windshield shall be secured in the down position (see figure 6).

3.4.1.3.7 Operational fluids and lubricants. Each vehicle and components shall conform to their respective operational fluid and lubricant requirements. Contaminated fluids and lubricants shall be removed and properly disposed. Operational fluids and lubricants shall be applied in accordance with LO 5-2350-262-12, drawings and documents applicable to the vehicle components. Any excess operational fluid or lubricant shall be removed and properly disposed.

3.4.1.3.7.1 Transmission and steering unit assembly. The transmission and steering unit assembly shall be filled to operating level with lubricant conforming to the expected temperature range requirements of the lubrication order. Breather shall be ready for operation and shall not be covered.

3.4.1.3.7.2 Transfer case. The transfer case shall be filled to operating level with lubricant conforming to the expected temperature range requirements of the lubrication order. Excess lubricating oil shall be removed, and properly disposed. Breather shall be ready for operation and shall not be covered.

3.4.1.3.7.3 Final drives. Final drives shall be filled to operating level with lubricating oil in accordance with Grade G0-80/90 of MIL-PRF-2105. Breather shall be ready for operation and shall not be covered.

3.4.1.3.7.4 Hydraulic systems. Hydraulic systems shall contain an operating level of lubricant fluid conforming to the expected temperature range requirements of the lubrication order. Exposed piston surfaces of hydraulic cylinders shall be coated with preservative in accordance with MIL-PRF-10924 and wrapped with barrier material in accordance with Type II, Grade A, Class 2 of MIL-B-121. Barrier material shall be completely wrapped with tape in accordance with Type II of MIL-T-22085. Breather shall be ready for operation and shall not be covered.

ATPD 2233

3.4.1.3.7.5 Engine crankcase. The engine crankcase shall contain an operating level of lubricant-preserved in accordance with Grade 15-40 of MIL-L-21260.

3.4.1.3.7.6 Roadwheel hub bearings. Roadwheel hub bearings shall contain lubricating grease in accordance with the requirements of the lubrication.

3.4.1.3.7.7 Winch. The winch shall contain an operating level of lubricant conforming to the expected temperature range requirement of the lubrication. Breather shall be ready for operation and shall not be covered.

3.4.1.3.8 Lubrication. Lubrication shall be applied to fittings and surfaces in accordance with LO 5-2350-262-12. Lubrication shall be applied to oil can points in accordance with LO 5-2350-262-12.

3.4.1.3.8.1 Lubrication of fittings and surfaces. Lubrication shall be applied to fittings and surfaces after cleaning and drying. Lubrication points shall include the following:

- a. Ejector Cylinder Rod Ends.
- b. Ejector Guide Rollers.
- c. Apron Hinge Pins.
- d. Apron Cylinder Rods
- e. Speedometer Adapter.
- f. Towing Pintle.
- g. Tachometer Adapter.
- h. Track Adjusting Cylinder Pins.
- i. Brake Control Shaft and Levers.
- j. Roadwheel Hubs.
- k. Prop Shaft.
- l. Hatch Cam Roller.

3.4.1.3.8.2 Lubrication of oil can points. Lubrication shall be applied to oil can points after cleaning and drying. Oil can points shall include the following:

- a. Trailer Receptacle Hinge.
- b. Winch Cable Clevis Pin.
- c. Towing Shackle Pins.
- d. Pintle Hook Latch.
- e. Dozer Latches.
- f. Lifting Eye Shackles.
- g. Apron Lockpins and Screw.
- h. Dozer Lockpins.

- i. Dozer Blade Shackle and Pin.
- j. Dozer Pivot Pins.
- k. Windshield Braces.
- l. Fire Extinguisher Handle.
- m. Operator's Hatch Holdopen Latch.
- n. Operator's Hatch Lever.
- o. Tiedown Shackles.
- p. Hull Drain Valve.
- q. Hand Brake Handle.
- r. Operator's Seat Slides.
- s. Brake Linkage.

3.4.1.3.9 Cooling system. Unless otherwise specified as arctic or tropic processing (see 6.2), the cooling system shall contain water and antifreeze solution in accordance with A-A-52624. The coolant solution shall provide protection from freezing at -40 degrees Fahrenheit (°F) [-40 degrees Celsius (°C)].

3.4.1.3.9.1 Tropic preparation. When specified for shipment and storage in a tropic environment, the cooling system shall contain the coolant specified in the contract or order (see 6.2 and TM 5-2350-262-10).

3.4.1.3.9.2 Arctic preparation. When specified for shipment and storage in an arctic environment, the cooling system shall contain the coolant specified in the contract or order (see 6.2 and TM 5-2350-262-10).

3.4.1.4 Packaging. Unless otherwise specified, each Component of End Item (COEI), each Basic Issue Item (BII) and each item disassembled from the vehicle shall be processed in accordance with the methods of MIL-STD-2073-1 (see Tables I, II, and III) (see 6.2).

3.4.1.4.1 Batteries, connecting cables, and electrolyte. Batteries, connecting cables, and battery electrolyte shall be processed in accordance with the specified level of protection (see 3.4.2 for special requirements).

3.4.1.4.2 Additional items. Additional items shipped with the vehicle shall be processed in accordance with the following guidance:

3.4.1.4.2.1 Application of preservatives. Except where application of preservative would cause damage, each item's unpainted, unplated ferrous surfaces shall be coated with preservative in accordance with Grade 4 of MIL-PRF-16173 immediately after cleaning and drying.

ATPD 2233

3.4.1.4.2.2 Method of preservation. Items with preserved critical surfaces and other items which require protection from water or dust shall be processed in accordance with MIL-STD-2073-1. Other preserved items without critical surfaces shall be processed in accordance with MIL-STD-2073-1. Each large item which requires only physical and mechanical protection shall be processed in accordance with MIL-STD-2073-1.

3.4.1.4.2.3 Cushioning, blocking and bracing. Item packaging shall include cushioning, blocking, and bracing sufficient to immobilize and prevent damage to the item.

3.4.1.5 Packing. Items shall be consolidated and packed into exterior shipping containers as specified for BII in ATPD 2241.

3.4.1.6 Marking. In addition to the marking specified in the contract or order, marking shall be applied as specified herein. Marking shall indicate the applied level of protection.

3.4.1.6.1 Vehicle. Vehicles shall be marked in accordance with MIL-STD-129.

3.4.1.6.2 BII. Exterior shipping containers, unit packages, and each item not provided with unit packaging shall be marked in accordance with MIL-STD-129. Exterior shipping containers shall contain the identification data: ASSORTED BII FOR (NSN), (U.S. ARMY REGISTRATION NUMBER). The NSN and registration number of the vehicle shall be used. Special handling marking shall be applied and packing lists shall be prepared in accordance with MIL-STD-129.

3.4.1.6.3 COEI. The unit packaging of each item shall be marked in accordance with MIL-STD-129. Exterior marking of assorted items packed together shall contain the identification data: ASSORTED COEI FOR (NSN), (U.S. ARMY REGISTRATION NUMBER). The NSN and registration number of the vehicle shall be used. Special handling marking shall be applied and packing lists shall be prepared in accordance with MIL-STD-129.

3.4.1.6.4 Disassembled items. The unit packaging of each item shall be marked in accordance with MIL-STD-129. Exterior marking of assorted items packed together shall contain the identification data: ASSORTED ITEMS FOR (NSN), (U.S. ARMY REGISTRATION NUMBER). The NSN and registration number of the vehicle shall be used. Special handling marking shall be applied and packing lists shall be prepared in accordance with MIL-STD-129.

3.4.1.6.5 Additional items. The exterior packs and the unit packaging of additional items shipped with the vehicle shall be marked in accordance with MIL-STD-129. Special handling marking shall be applied and packing lists shall be prepared in accordance with MIL-STD-129.

3.4.1.7 Stowage. Unless otherwise specified, stowage and securement shall conform to the requirements specified herein and meet carrier and transportation requirements (see 6.2). Stowage and securement methods shall be sufficient and safe for the intended purpose. Stowage and securement, including blocking, and bracing shall provide clearance for sling cables and lifting eyes, and shall meet weight and the clearance requirements of the shipment medium.

3.4.1.7.1 COEI, BII, and disassembled items. COEI, BII, and disassembled items shipped with the vehicle shall be stowed and secured in the locations specified in Tables I, II, and III. The stowage locations specified in Tables I, II, and III are shown in figure 7. The COEI, BII, and disassembled items shall be secured to a pallet. Size of the pallet shall be modified to 67 inches long by 62-1/4 inches wide. The shipping containers for the BII and COEI shall be placed on the pallet so the skid runners of each container rest across one (1) outside and one (1) inside stringer of the Type III modified pallet. The palletized cargo shall be loaded in the vehicle bowl between the retracted ejector assembly and the fully raised and locked apron assembly. The palletized cargo may be loaded as shown in the operators manual (see TM 5-2350-262-10) or with a fork lift. Blocking shall be placed between the pallet and the apron assembly (see figure 7). The wood blocking shall be of 4 x 4 (nominal) X 62-1/4 inch lumber in accordance with standard commercial practices. The ejector assembly shall be moved forward to hold the palletized cargo and blocking in place once the apron assembly is in the closed position. The blocking shall prevent the palletized cargo from being caught on the apron wear plate when raising the apron assembly during the palletized cargo unloading operation.

3.4.1.7.2 Additional items. Additional items shipped with the vehicle shall be stowed in accordance with MIL-STD-2073-1.

3.4.1.8 Closure. Specified openings of the vehicle and components shall be blocked to prevent deterioration. In addition, other specified openings of the vehicle shall remain open to allow drainage or ventilation. Processing for closure and ventilation shall meet carrier and transportation requirements. Special requirements for closure shall conform to the specified level of protection (see 3.4.2).

3.4.1.8.1 Ventilation screens. After removal of engine and actuator access plates and subsequent cleaning, drying, and preservation, wire screens shall be installed as show in figures 3, 4, and 5. Unpainted metal surfaces exposed by removal of these plates shall be coated with preservative in accordance with Grade 4 of MIL-PRF-16173. Plates shall be packaged and stowed as specified for disassembled items (see Table II and figure 7).

3.4.1.8.2 Windshield wiper arm and wiper blade. The windshield wiper arm and wiper blade shall be removed to prevent pilferage and shall be packed and stowed as specified for disassembled items (see Table II and figure 7).

ATPD 2233

3.4.1.8.3 Vision blocks. The driver's vision blocks shall be protected with lens paper in accordance with A-A-50177. The lens paper shall be secured and covered with tape in accordance with Type II of MIL-T-22085.

3.4.1.8.4 Driver's hatch cover. Driver's hatch cover shall be secured in the closed and latched position with a lock. Keys shall be handled in accordance with applicable security requirements.

3.4.1.8.5 Bilge pump discharge. The bilge pump discharge opening shall be sealed with tape in accordance with Type II of MIL-T-22085.

3.4.1.8.6 Exterior control of fire extinguisher. The recess opening shall be sealed with tape in accordance with Type II of MIL-T-22085.

3.4.1.8.7 Hull drain valve. Hull drain valve shall be open for shipment.

3.4.1.9 Loading. Vehicle and components shall be loaded and secured for transport. Loading and securement methods shall be sufficient and safe. Loading and securement shall conform to carrier requirements and applicable transportation regulations (see 6.2).

3.4.1.9.1 Vehicle lifting and towing. Lifting and towing of the vehicle after processing shall be in accordance with approved methods. Any movement of partially processed vehicles which interferes or conflicts with vehicle processing is not recommended.

CAUTION: BEFORE VEHICLE SECUREMENT THE VEHICLE MUST BE IN THE UNSPRUNG MODE (SEE TM 5-2350-262-10).

CAUTION: BEFORE VEHICLE TOWING THE VEHICLE MUST BE IN THE SPRUNG MODE AND THE FINAL DRIVES DISCONNECTED (SEE TM 5-2350-262-10).

3.4.1.9.2 Loading for commercial shipment.

3.4.1.9.2.1 Loading for commercial rail shipment. Loading and securement of commercial rail shipment within the U.S. and Canada shall conform to the general rules governing loading of commodities on open top cars and rules governing the loading of DoD material on open top cars of the American Association of Railroads (AAR Section No. 6, Figure 79). Other foreign rail shipments shall be in accordance with the vehicle's transportability guidance technical manual, TM 55-2350-262-14, and the applicable transportation regulations.

CAUTION: BEFORE VEHICLE LOADING AND SECUREMENT, THE VEHICLE
MUST BE IN THE UNSPRUNG MODE.

3.4.1.9.2.2 Loading for other commercial shipment. Loading and securement shall conform to carrier requirements and to applicable transportation regulations. Shipments shall also be in accordance with the vehicle's transportability guidance technical manual, TM 55-2350-262-14

3.4.1.9.3 Military shipment. Guidance for all modes of military shipments is provided by the vehicle's transportability guidance technical manual (see TM 55-2350-262-14).

3.4.2 Special requirements. Special requirements for processing shall be of the specified level of protection (see 6.2). Special requirements for Level A shall be as specified in 3.4.2.1. Special requirements for Level B shall be as specified in 3.4.2.2.

3.4.2.1 Level A. When Level A processing is specified, the following special procedures and operations are required:

3.4.2.1.1 Fuel system. After completion of all actions which require fuel system operation, the fuel system shall be processed for Level A. Procedures and operations shall be in accordance with the sequence of steps described below:

a. Fuel tank.

1. Drain the fuel tank and fuel filter by opening the fuel drain shutoff cock located at the rear of the vehicle.
2. Close the fuel drain shutoff cock and extract the remaining fuel from the fuel tank.
3. Remove fuel access cover and fuel tank cap. Apply preservative to the interior surface of the fuel tank cap and strainer element and replace fuel tank cap.

b. Fuel lines and pump.

1. Prepare the preservative container assembly (see figure 1). Position the selector valve to "off". Add preservative (and dye if required) to one compartment. Reserve second compartment for diesel fuel required for deprocessing.

ATPD 2233

2. Disconnect the fuel supply line from the fuel filter at the inlet adapter (see figure 9). Connect the preservative container assembly to the fuel filter using a female hose barb fitting, 7/8 - 14 thread for ½ inch I.D. hose (see figure 1).
3. Disconnect the engine fuel return line at the quick-disconnect coupling (see figure 9). Connect the preservative recovery line to the vehicles quick disconnect coupler, 12357232-2 (see figure 10). Insert the end of the recovery line into a recovery container.
4. Position the selector valve on the preservative container assembly for flow of preservative.
5. Start and run the engine until remaining diesel fuel is flushed from the fuel lines and the engine is using preservative as fuel. Continue until 2 gallons are collected from the recovery line in the recovery container.

c. Engine combustion chambers.

1. Allow engine to cool to the ambient temperature.
2. Restrict air flow to the engine with air restrictor plate (see figure 2). Crank engine for 20 seconds only (engine may fire briefly).
3. Allow starter to cool for 10 minutes.
4. Repeat Steps 2 and 3 until approximately one (1) quart of preservative oil is collected in the recovery container or until four (4) repetitions of Steps 2 and 3 are completed.
5. Position the selector valve of the preservative container assembly to “off”. Disconnect the preservative container assembly from the fuel filter. Reassemble the fuel supply line to the fuel filter.
6. Disconnect the preservative return line at the quick disconnect coupling and reassemble the fuel return line.
7. Drain excess preservative oil by opening the fuel drain shutoff cock located at rear of vehicle (see figure 1).
8. Preserve exterior of fuel drain shutoff cock and return to closed position.

3.4.2.1.2 Engine oil level indicator. After preservation of the fuel system, the engine oil level gauge rod shall be removed. Six ounces of preservative oil in accordance with Grade 1 of MIL-P-46002 shall be fogged into crankcase through engine oil level gauge rod opening. Spray nozzle shall not be submerged in crankcase oil. After spraying has been accomplished, engine oil level gauge rod shall be reinstalled. The engine oil level gauge rod and the engine oil filler cap shall be sealed with tape in accordance with Type II of MIL-T-22085.

ATPD 2233

3.4.2.1.3 Steer unit oil level indicator. After preservation of the fuel system, the steer unit level gauge rod shall be removed. Six ounces of preservative oil in accordance with Grade 1 of MIL-P-46002 shall be fogged into steer unit through the steer unit oil level gauge rod opening. Spray nozzle shall not be submerged in steer unit oil. After spraying has been accomplished, steer unit oil level gauge rod shall be reinstalled. The steer unit oil level gauge rod shall be sealed with tape in accordance with Type II of MIL-T-22085.

3.4.2.1.4 Air intake and exhaust openings. After preservation of the fuel system, 1 ounce of preservative oil in accordance with Grade 1 of MIL-P-46002 shall be fogged into engine exhaust opening. The engine air induction hose shall be disconnected at air intake, and 1 ounce of preservative oil in accordance with Grade 30W of MIL-L-21260, shall be fogged into the air intake opening. The engine air induction hose shall be reconnected at the air intake. The air exhaust opening shall be closed with tape in accordance with Type II of MIL-T-22085.

3.4.2.1.5 Air cleaner assembly. After preservation of the fuel system, place a bag in accordance with Style 2, Type I, and Class B (6 MIL) of MIL-B-117 over air intake on the air cleaner assembly. Secure bag in place using tape in accordance with Type II of MIL-T-22085 (see figure 8).

3.4.2.1.6 Batteries and electrolyte. Dry charge batteries shall be installed without electrolyte. Electrolyte shall be separately packaged and stowed (see figure 7). Terminal leads shall be preserved with grease in accordance with MIL-PRF-10924 and overwrapped with barrier material in accordance with Type II, Grade A, Class 2 of MIL-B-121. Barrier material shall be secured in place and completely covered with tape in accordance with Type I, Class 1 of ASTM D5486. Terminal leads shall be restrained with two (2) strap tiedowns, MS3367 (see figure 11).

3.4.2.1.7 Marking of battery electrolyte. Battery electrolyte shall be marked in accordance with MIL-STD-129, including requirements for special handling.

3.4.2.2 Level B. When Level B processing is specified, the following special procedures and operations are required:

3.4.2.2.1 Fuel system preservation. The fuel system shall be prepared for vehicle operation. Unless otherwise specified, the fuel tank shall be filled with 40 gallons of diesel fuel in accordance with the selected seasonal grade of A-A-52577 (see 6.2).

3.4.2.2.1.1 Special fuel volume requirement. When specified, an increased or decreased volume of fuel shall be placed in the fuel tank (see 6.2).

3.4.2.2.2 Air intake, exhaust openings, and air cleaner assembly. The air intake, exhaust openings, and air cleaner assembly shall be prepared for vehicle operation.

3.4.2.2.3 Battery terminals, connections, and electrolyte. Battery terminals and connections shall be installed for vehicle operation. Batteries shall be installed with electrolyte and charged for vehicle operation.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.2).
- b. Conformance inspections CI (see 4.3).

4.2 First article inspection. First article inspection shall be performed at the contractor's facilities or at other facilities acceptable to the Government. First article inspection shall be on sample vehicles processed with materials, equipment, procedures, and operations normally used in production (see 3.1).

4.2.1 Sample. One of the first 10 production vehicles processed to each level of protection shall be subjected to first article inspection. The sample processed vehicle(s) shall have been subjected to and passed the requirements of CI (see 4.3).

4.2.2 Inspection routine. Sample vehicles shall be inspected as specified in 4.3 conforming to CI requirements in Table IV.

TABLE IV. First article and Conformance Inspections.

Inspection	Requirement Paragraph	Inspection Method Paragraph
First Article:		
Fuel System (Level A) Preservation	3.4.2.1.1	4.5.1
BII/COEI/Disassembled Item Package	3.4.1.4	4.5.2
BII/COEI/Disassembled Item Stowage	3.4.1.7 and 3.4.1.7.2	4.5.2
Conformance:		
Disassembly	3.4.1.1	4.5.3
Cleaning & Drying	3.4.1.2 and 3.4.1.2.6	4.5.3
Preservation	3.4.1.3	4.5.3
Packaging	3.4.1.4	4.5.2.1 and 4.5.3
Packing	3.4.1.5	4.5.3
Marking	3.4.1.6	4.5.3
Stowage	3.4.1.7	4.5.3
Closure	3.4.1.8	4.5.3
Loading	3.4.1.9	4.5.3

4.2.3 Failure. Failure of a sample processed vehicle to meet CI requirements or failure of a sample processed vehicle to meet first article inspection requirements specified in Table IV shall be cause for rejection. Acceptance of first article shall not be granted until objective evidence is shown that the contractor has corrected the condition(s) causing failure.

4.3 CI. CI shall be performed at the contractors facilities or at other facilities acceptable to the Government on each lot of processed vehicle.

4.3.1 Inspection lot. The inspection lot shall be defined as one vehicle and shall consist of each vehicle processed to the specified level of protection.

4.3.2 Inspection routine. Each processed vehicle shall be subjected to the CI in Table IV. Equipment, material, procedures, and operations shall be monitored for conformance.

4.3.2.1 Monitoring of equipment. Processing equipment shall be identified and inspected monthly or at the beginning of each vehicle processing to ensure proper operation (see 3.2).

4.3.2.2 Monitoring of material. Each material shall be identified and inspected monthly or at the beginning of each vehicle processing to ensure conformance to material specification requirements. Materials which have been Government inspected at the source and materials which have been previously certified shall require monitoring only if subject to deterioration or contamination (see 3.3).

4.3.2.3 Monitoring of procedures and operations. Procedures and operations shall be reviewed periodically to ensure conformance with prescribed procedures and operations. Records of personnel training for vehicle processing and records of personnel certified to prepare hazardous material shipments shall be reviewed periodically to ensure adequate current training and certification (see 3.4).

4.3.3 Rejection. Failure of a processed vehicle to meet CI requirements or failure of a processed vehicle to conform to the applicable requirements of this purchase description shall be cause for rejection. If a processed vehicle is rejected, the contractor may rework it to correct the defects and resubmit for inspection. The former rejection or requirements for correction shall be disclosed with the resubmittal for inspection.

4.4 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein (see 6.2). Unless otherwise specified by the Government, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein. The Government reserves the right to perform or witness any of the inspections set forth in the purchase description where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.4.1 Responsibility for compliance. All items must meet all requirements of section 3. The inspection set forth in this purchase description shall become a part of the contract's overall inspection system or quality program. The absence of any inspection requirements in the purchase description shall not relieve the contractor's responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.4.2 Inspection equipment. Unless otherwise specified in the contract, the contractor is responsible for the provision and maintenance of all inspection equipment necessary to assure that supplies and services conform to contract requirements (see 6.2). Inspection equipment must be capable of repetitive measurements to an accuracy of 10 percent of the measurement tolerance. Calibration of inspection equipment shall be in accordance with standard commercial practices.

4.4.3 Inspection records. Contractor shall maintain records of all inspections performed and such records shall be readily available for review by the Government representative.

4.5 Methods of inspection.

4.5.1 First article inspection of Level A fuel system processing. For first article inspection, the fuel system, including the fuel lines, fuel pump, and engine shall be disassembled to the extent necessary to permit visual examination of preserved surfaces. Exposed surfaces shall have a coating of preservative. Oil soluble red dye in accordance with MIL-D-81298 shall be dissolved in the preservative to permit visual examination of preserved combustion chambers (see 3.3.3.1).

4.5.2 First article inspection of BII, COEI, and disassembled items. For first article inspection, the method of preservation for BII, COEI, and disassembled items shall be inspected in accordance with MIL-STD-2073-1. Inspection of the methods of preservation shall include cleaning, preservation, packaging, and marking. Rough handling testing shall apply only to exterior containers.

4.5.2.1 CI of BII, COEI, and disassembled item processing. For CI, the method of preservation for BII, COEI, and disassembled items shall be inspected conforming to quality assurance provisions in accordance with MIL-STD-2073-1. Inspection of the methods of preservation shall include cleaning, preservation, packaging and marking. Inspection of the methods of preservation shall not include rough handling testing.

4.5.3 CI of processing. The vehicle processing shall be inspected visually for conformance to the requirements listed in Table IV. The cooling system processing shall be tested using a hydrometer in accordance with standard commercial practices.

5. PACKAGING

5.1 This section is not applicable to this purchase description.

6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. This document specifies processing of the M9 Armored Combat Earthmover (ACE) for shipment and storage. This document is cited in a contract or purchase order to obtain protection from known or anticipated conditions of shipment, handling and storage.

6.1.1 Level A, maximum protection. Maximum protection, called Level A, is processing for the most severe conditions of shipment, handling and storage. Maximum protection should be applied to protect vehicles where the period of shipment, handling and storage will exceed 90 days from the date of processing. Level A protection should be applied for long-term open storage and for deck loaded marine shipment.

6.1.2 Level B, intermediate protection. Intermediate protection, called Level B, is processing for known favorable conditions of shipment, handling, and storage. Intermediate protection should be applied when Level A protection is not required and when the period of shipment, handling, and storage will not exceed 90 days from the date of processing. Level B protection should be applied for domestic shipment and known favorable overseas shipment excluding marine deck loading.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, numbers, and date of this purchase description.
- b. Applicable level(s) of protection (see 1.2 and 3.4.2).
- c. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1 and 2.2.3).
- d. If first article provisions are not required (see 3.1).
- e. The access covers shall not be removed for Level B shipment (see 3.4.1.1.1).
- f. The mode(s) of transport and transportability guidance if shipment by special transport mode is required (see 3.4.1.1.1, 3.4.1.1.2, 3.4.1.8, and 3.4.1.10).
- g. If cleaning is required (see 3.4.1.2).
- h. If examination of contamination for component systems containing operational fluids is required (see 3.4.1.2.5).
- i. If drying is required (see 3.4.1.3.6).
- j. If vehicle surfaces and components should be preserved other than as specified (see 3.9.1.4).
- k. If lubrication is required (see 3.4.1.4.7).
- l. If preservation of the cooling system is required (see 3.4.1.4.8).
- m. If preparation of the cooling system for shipment and storage in a tropic or arctic environment is required (see 3.4.1.3.8.1 and 3.4.1.3.8.2).
- n. If packaging of COEI, BII, and disassembled items from the vehicle is required (see 3.4.1.5).
- o. If stowage is required (see 3.4.1.8).
- p. If loading is required (see 3.4.1.10).
- q. Special requirements for processing (3.4.2).
- r. If fuel system preservation is required (see 3.4.2.2.1).
- s. If an increased or decreased volume of fuel is required (see 3.4.2.2.2).

- t. If responsibility for inspection equipment shall be other than as specified (see 4.1.2).
- u. Packaging requirements (see 5.1).

6.3 Definitions.

6.3.1 Packaging. The application or use of adequate protective measures to prevent deterioration including, as applicable, the use of appropriate cleaning procedures, preservatives, protective wrapping, cushioning, containers, and complete identification marking.

6.3.2 Recovered materials. “Recovered materials” means materials that have been collected or recovered from solid waste (see 6.3.3).

6.3.3 Solid waste. “Solid waste” means (a) any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility; and (b) other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. It does not include solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Clean Water Act, (33 U.S.C. 1342 et seq.), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.). (Source: Federal Acquisition Regulations, section 23.402).

6.3.4 Unit Package. The first tie, wrap, or container applied to a single item, multiple thereof, or a group of identical items which provides a complete and properly identified package.

6.4 Forms. A copy of the equipment log book and all required forms shall be furnished to the contractor by the Government at least 30 days before shipment of the equipment as required by the contract delivery schedule.

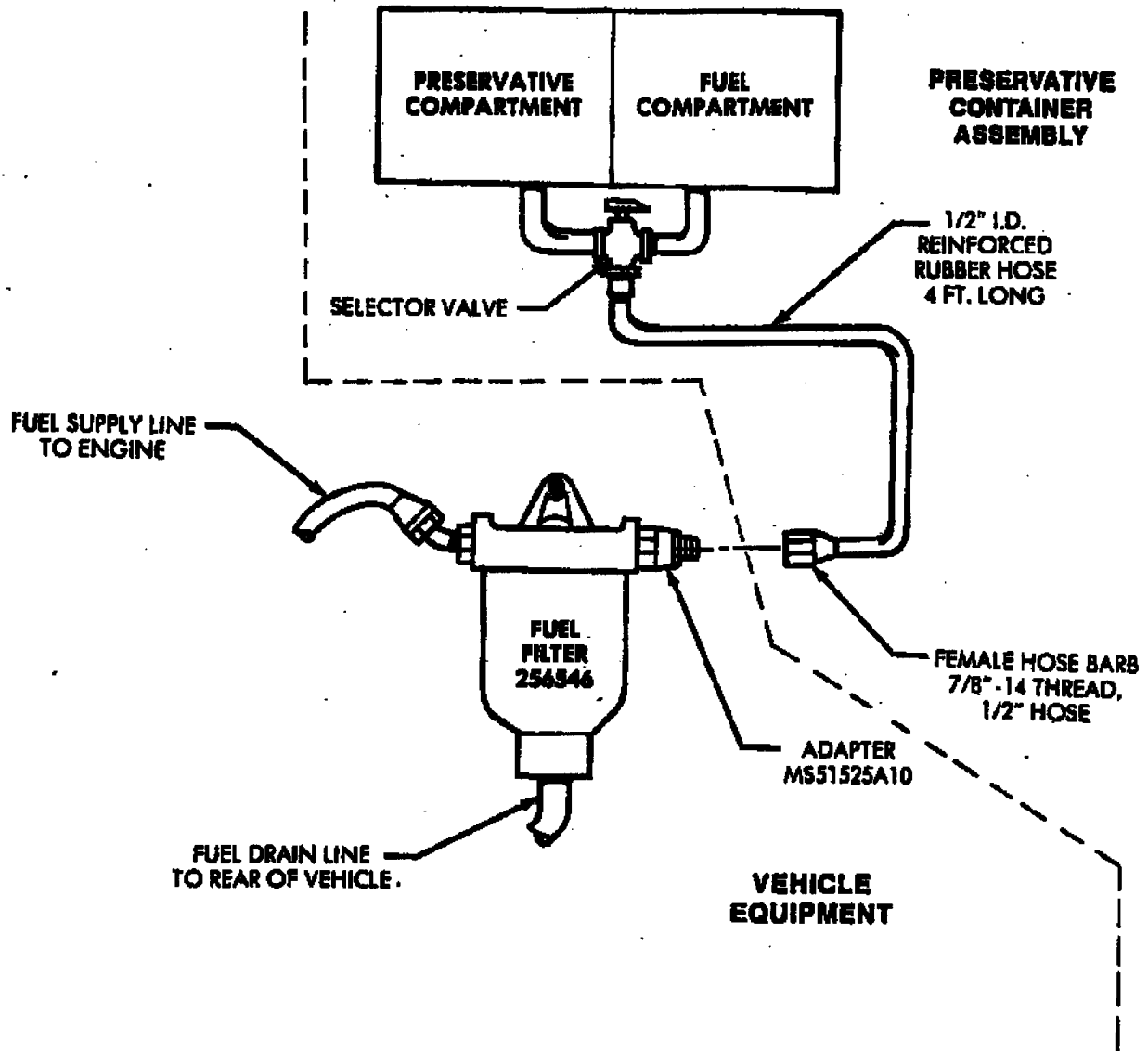
6.5 Subject term (key word) listing.

Air Restrictor Plate
Atomizer
Containers
Disassembly
Preservatives

ATPD 2233

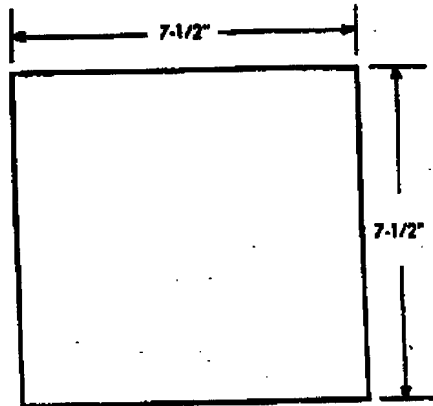
6.6 AMC policy on AQLs/LTPDs. This purchase description is certified to be in compliance with current Army Materiel Command (AMC) policy for the elimination of AQLs/LTPDs (Acceptable Quality Levels/Lot Tolerance Percent Defectives) from military specifications.

6.7 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

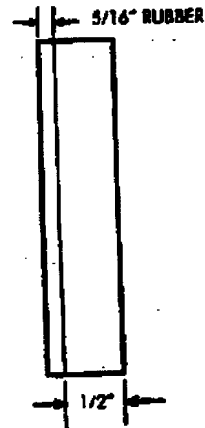


NOTE: CONNECT FEMALE HOSE BARB TO VEHICLE FUEL LINE AT FUEL FILTER INLET ADAPTER MS51525A10

FIGURE 1. Preservative container assembly.

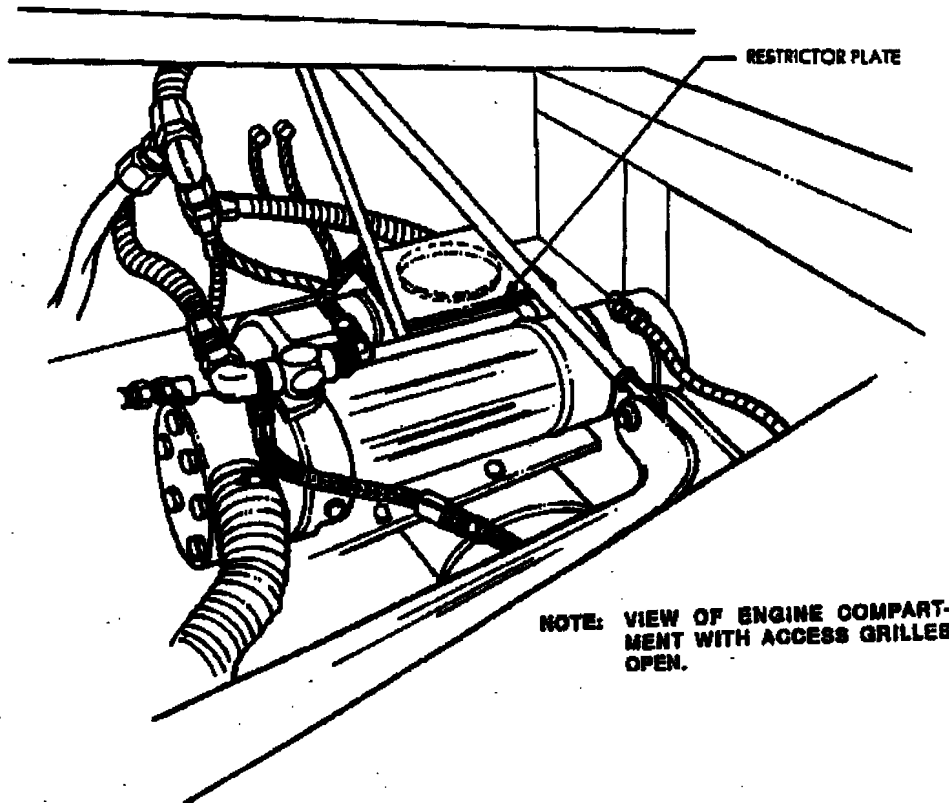


MATERIAL NOTE
 RUBBER TENSILE STRENGTH
 1500-1800 LBS
 DUROMETER 55 \pm 5
 PLYWOOD — COMMERCIAL GRADE



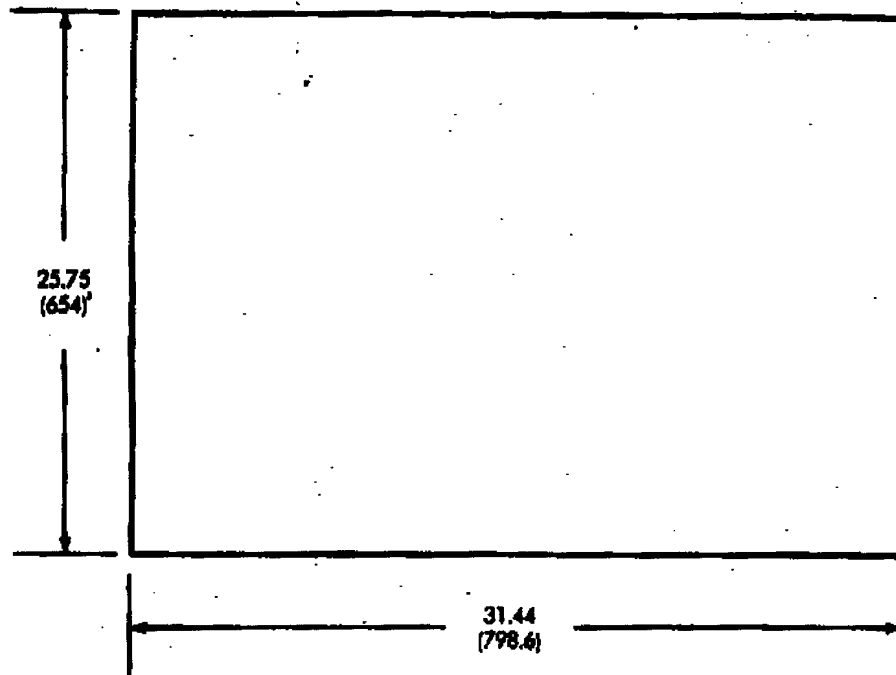
NOTE:
 CEMENT RUBBER TO PLYWOOD
 WITH NMM-A-260

AIR RESTRICTOR PLATE

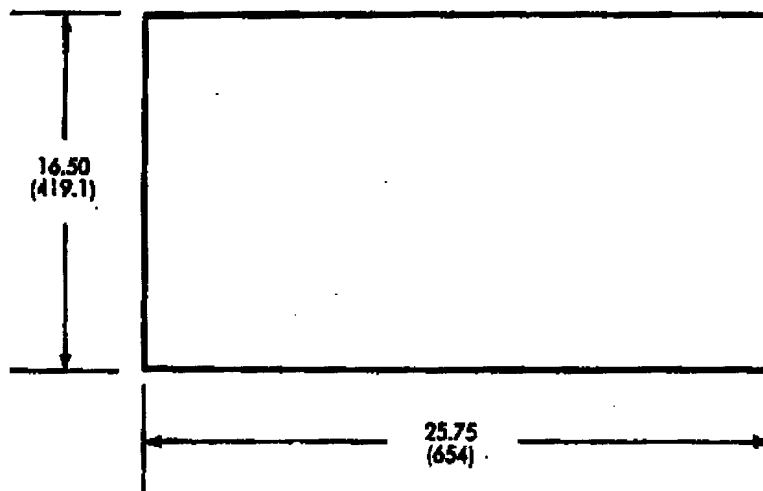


NOTE: VIEW OF ENGINE COMPART-
 MENT WITH ACCESS GRILLES
 OPEN.

FIGURE 2. View of engine/restrictor plate.

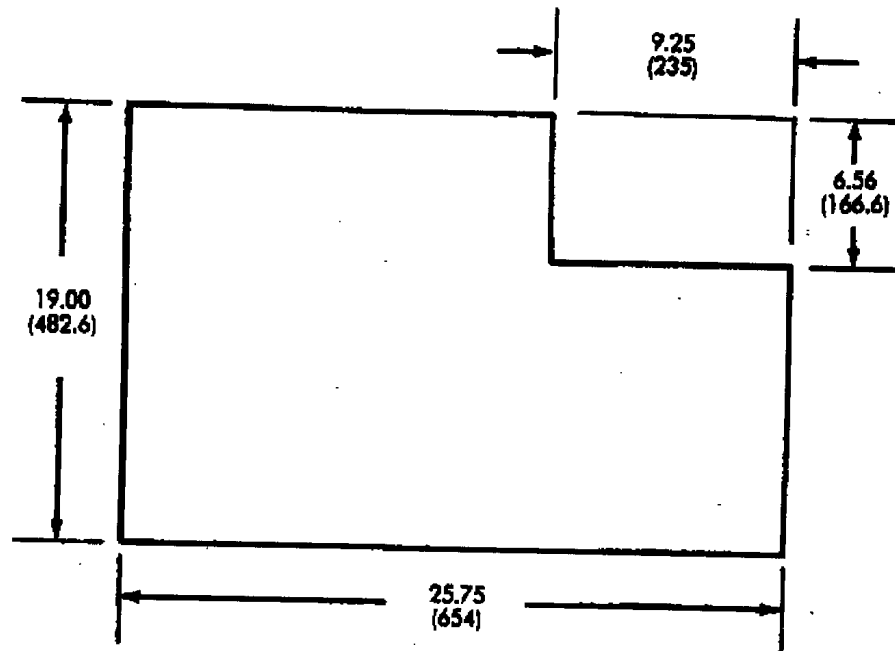


REPLACES PLATE -- 12352551
DIMENSIONS IN INCHES (AND MILLIMETERS)

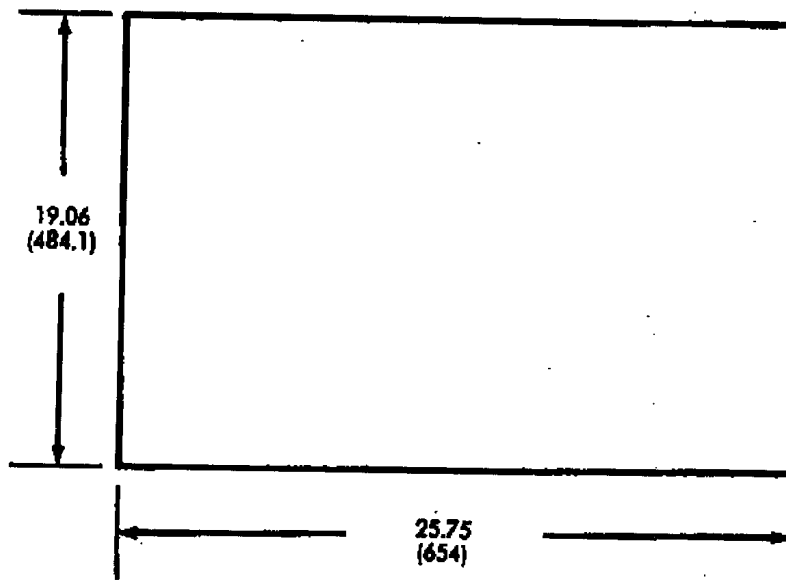


REPLACES PLATE -- 12352549
DIMENSIONS IN INCHES (AND MILLIMETERS)

FIGURE 3. Screen, wire.



REPLACES PLATE — 12352550
DIMENSIONS IN INCHES (AND MILLIMETERS)



REPLACES PLATE — 12352552
DIMENSIONS IN INCHES (AND MILLIMETERS)

FIGURE 4. Screen, wire.

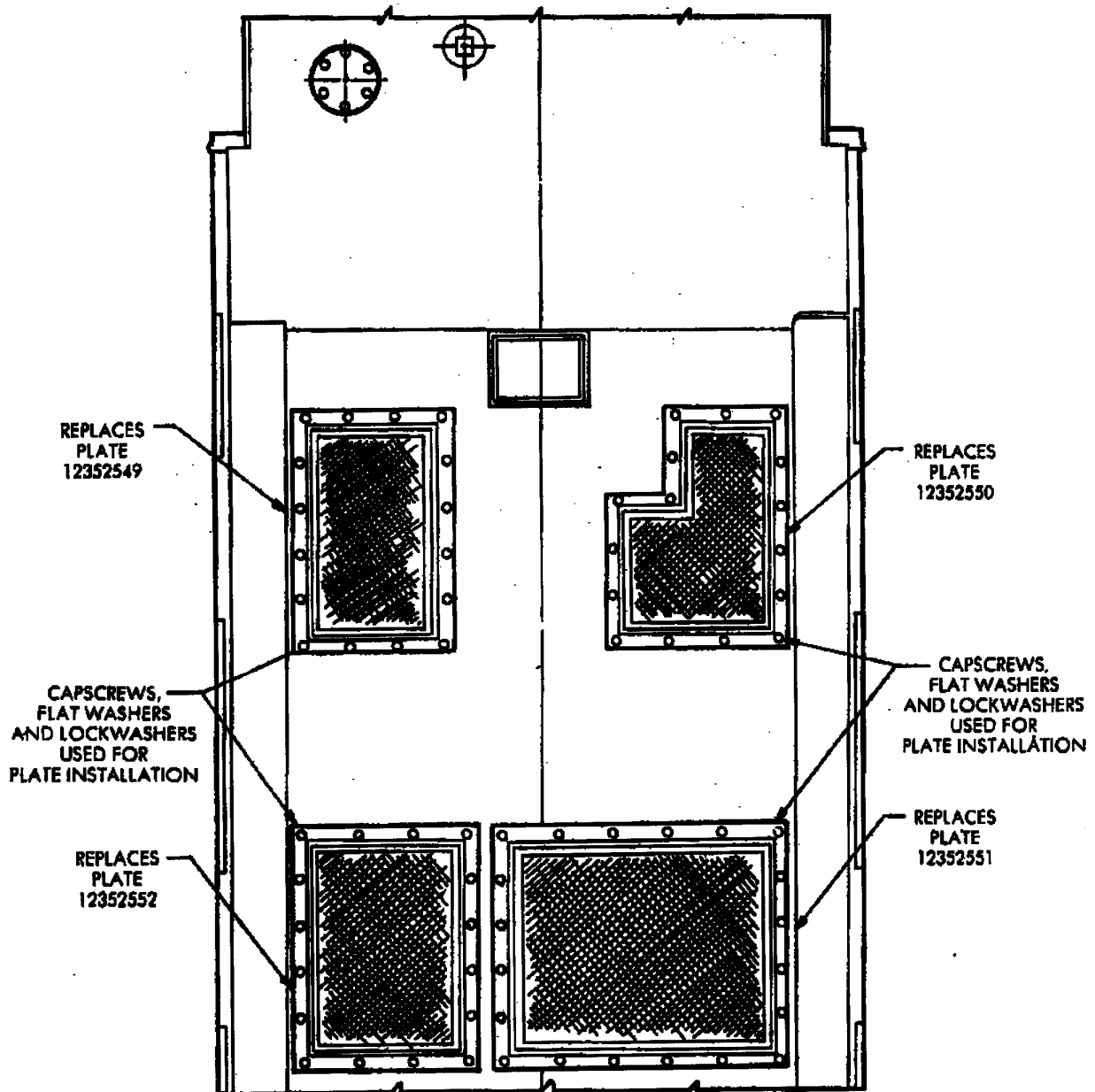


FIGURE 5. View of vehicle underside ventilation screens.

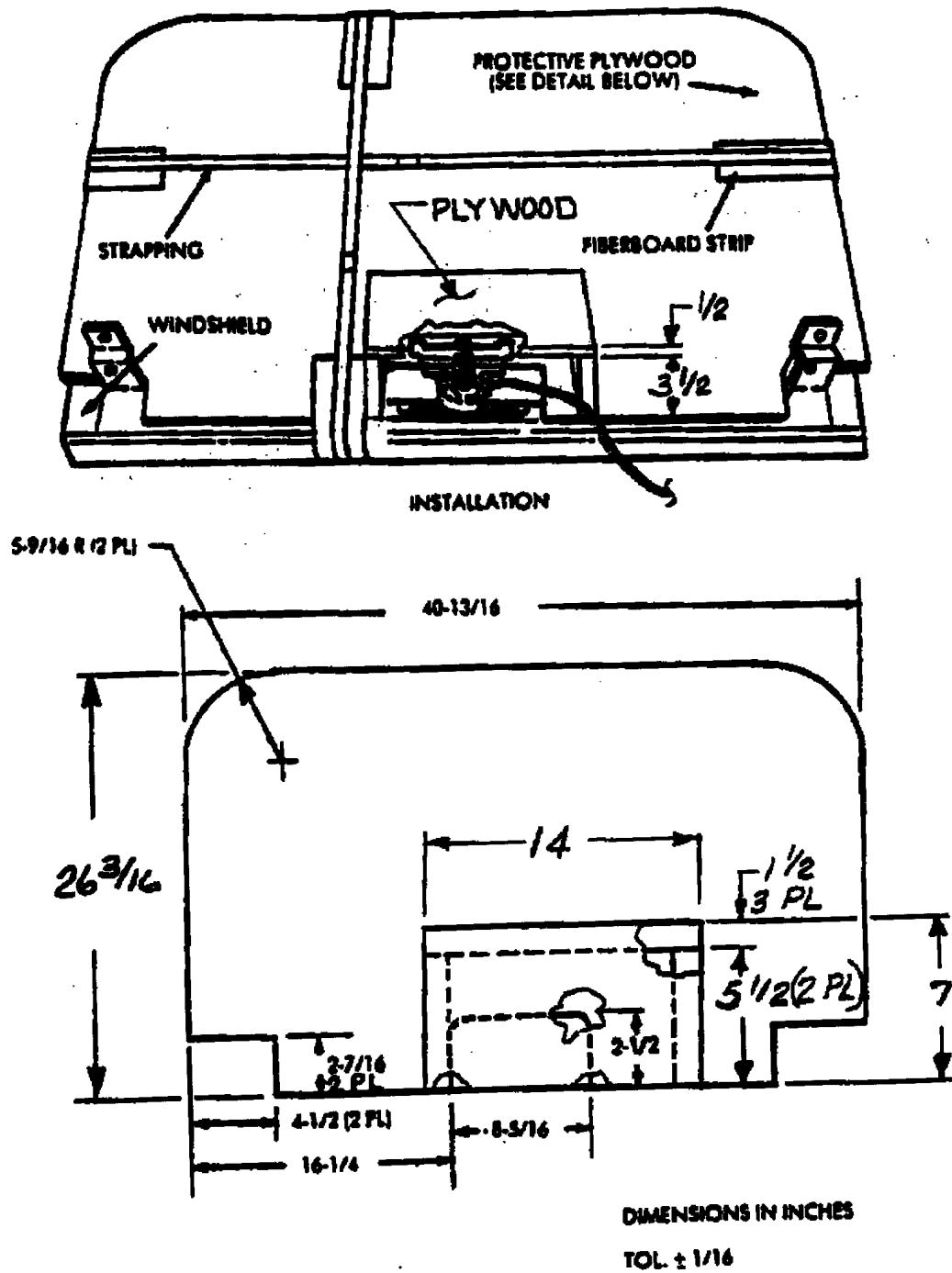


FIGURE 6. Protective plywood detail.

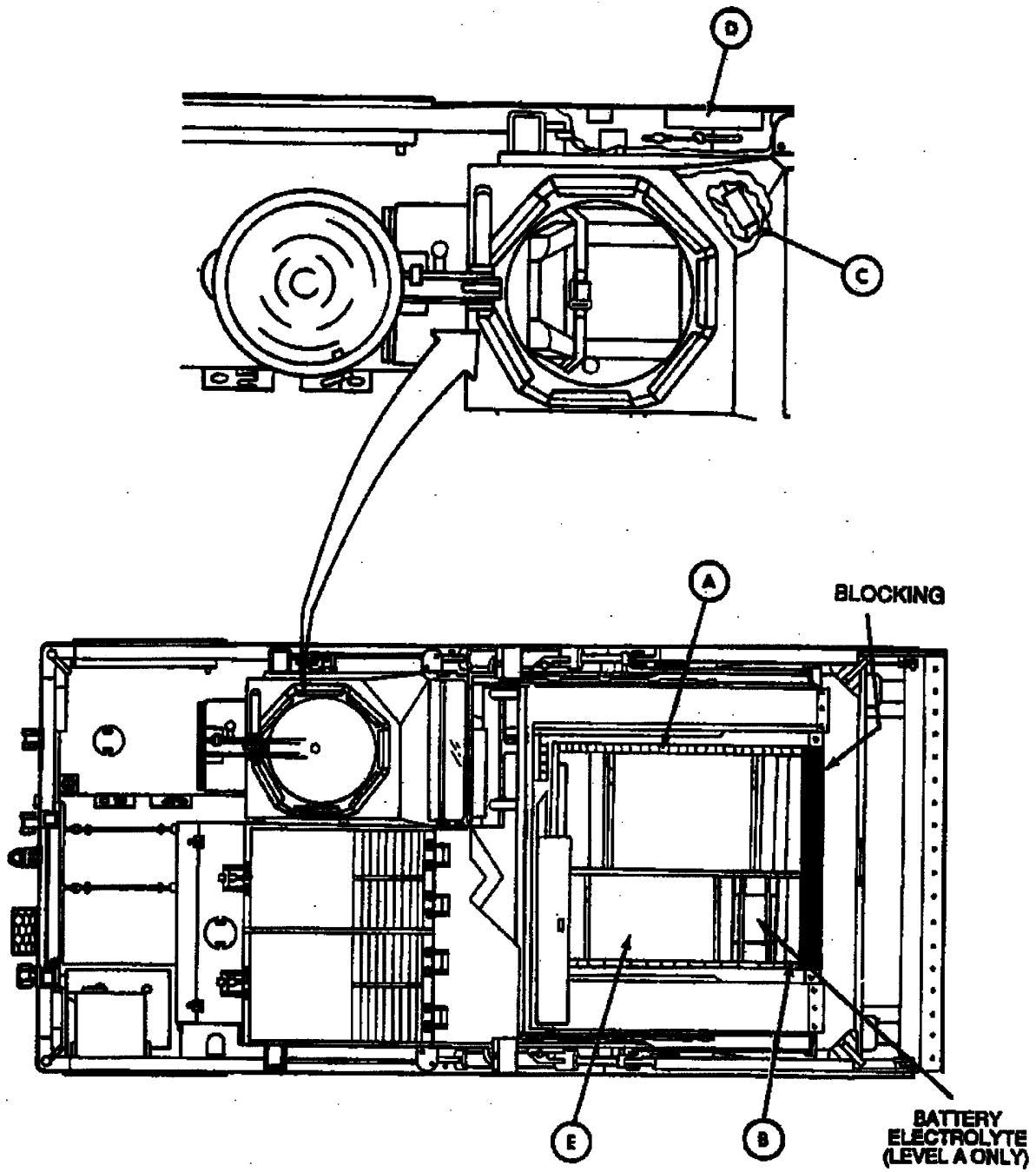


FIGURE 7. Stowage locations.

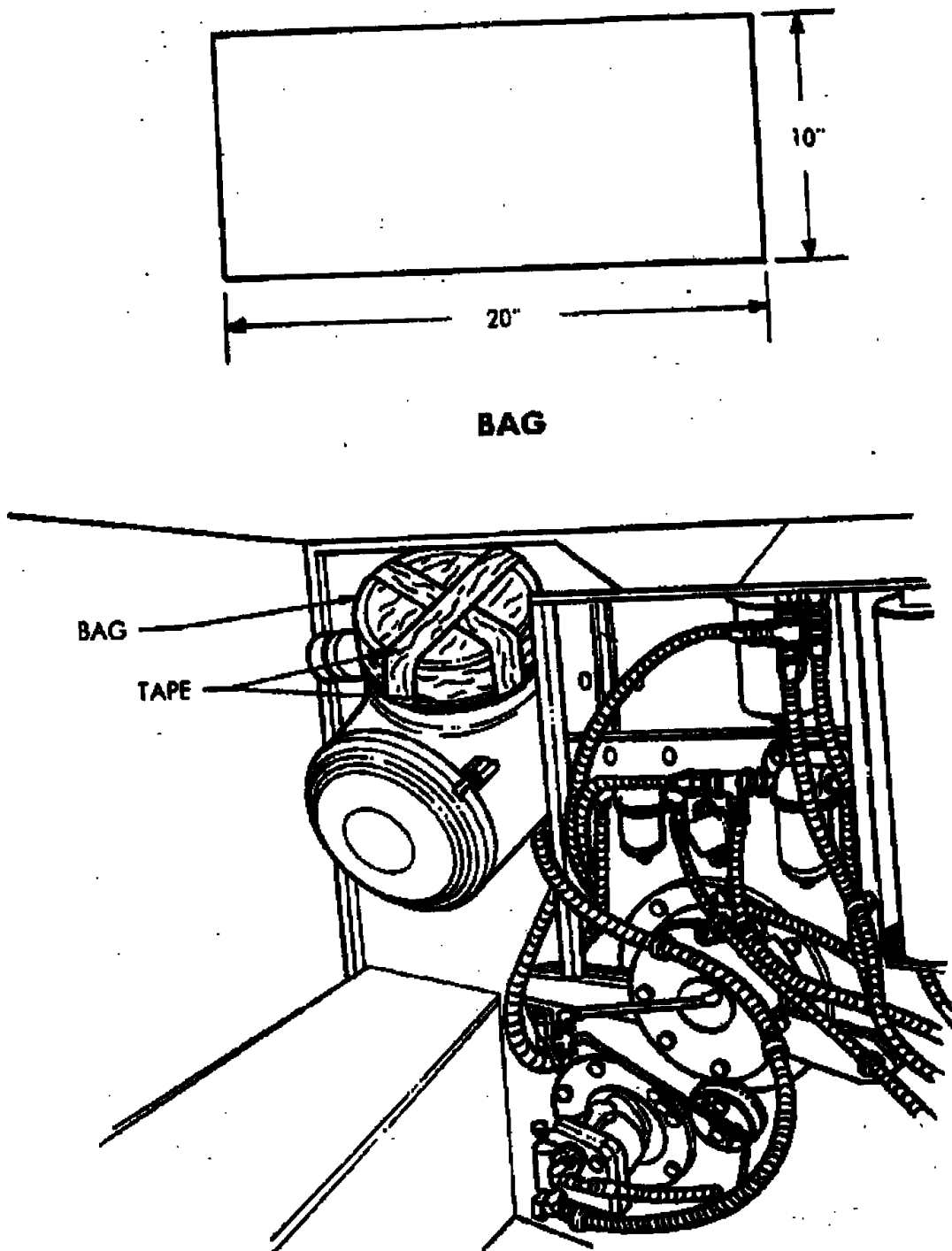
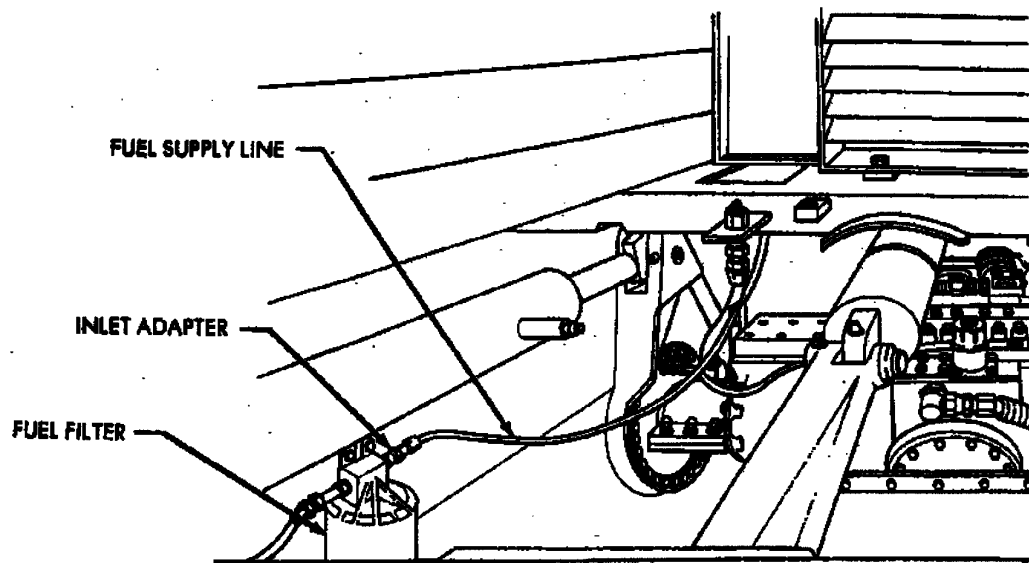
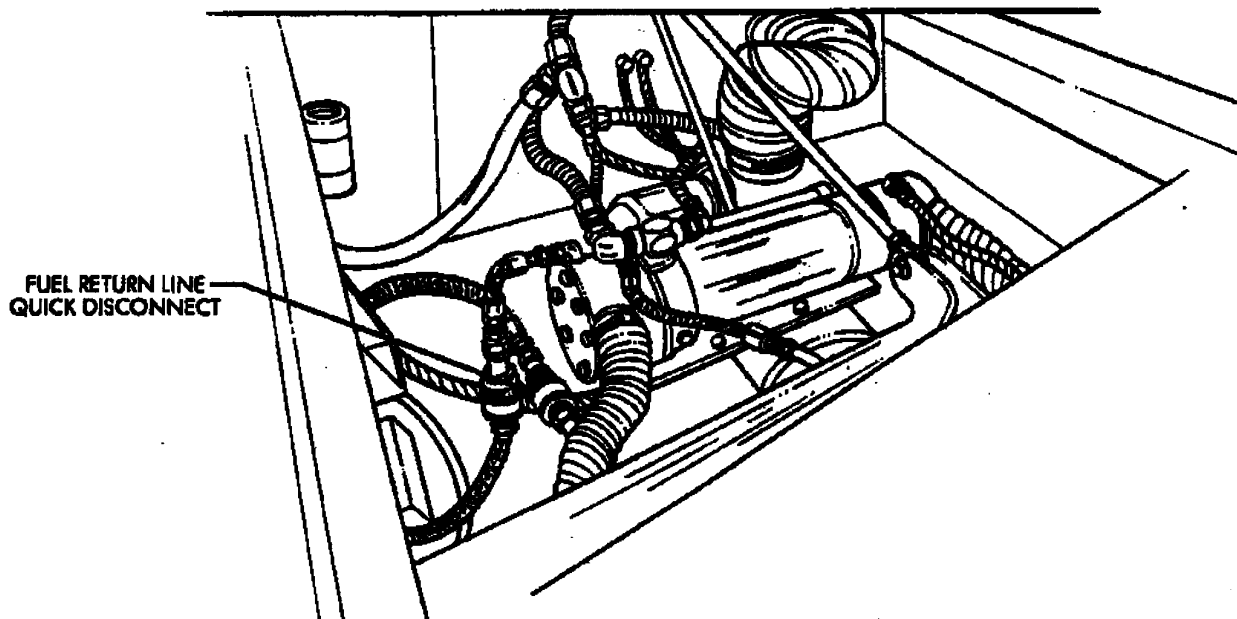


FIGURE 8. Air cleaner assembly with protective bag.

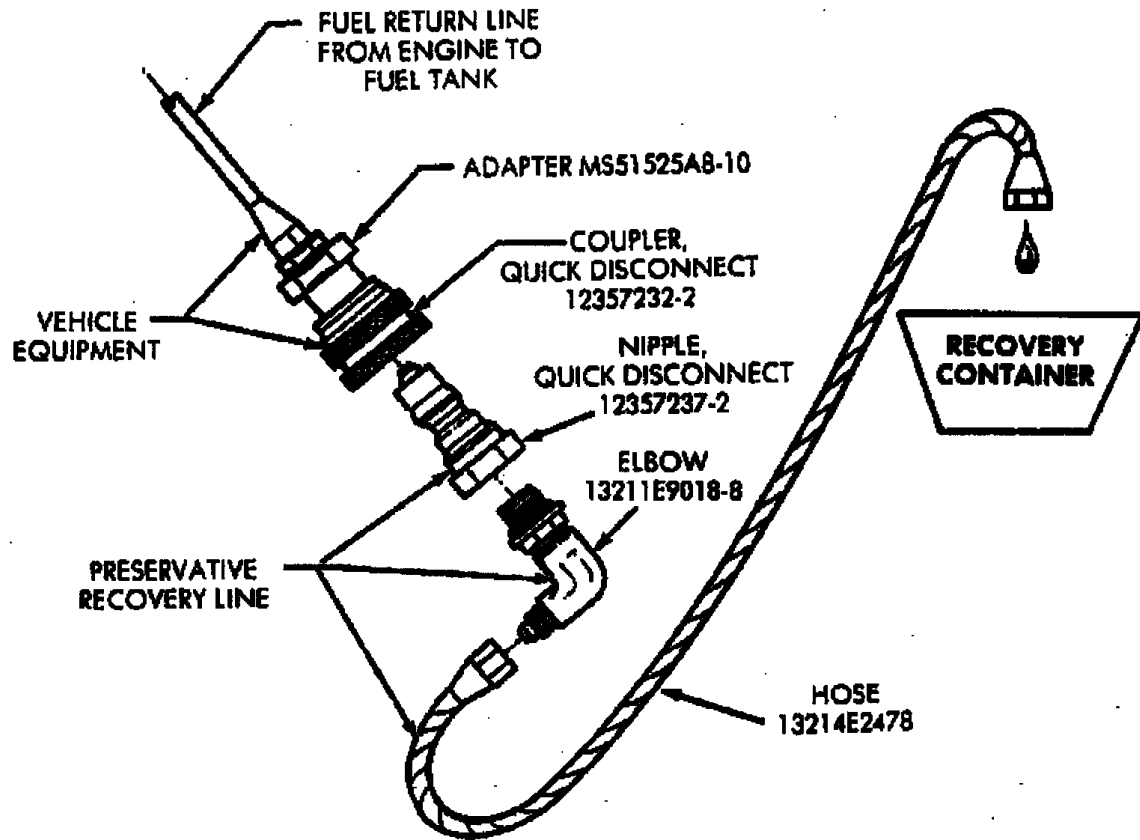


VIEW OF VEHICLE FUEL FILTER WITH REAR FLOOR PLATES REMOVED



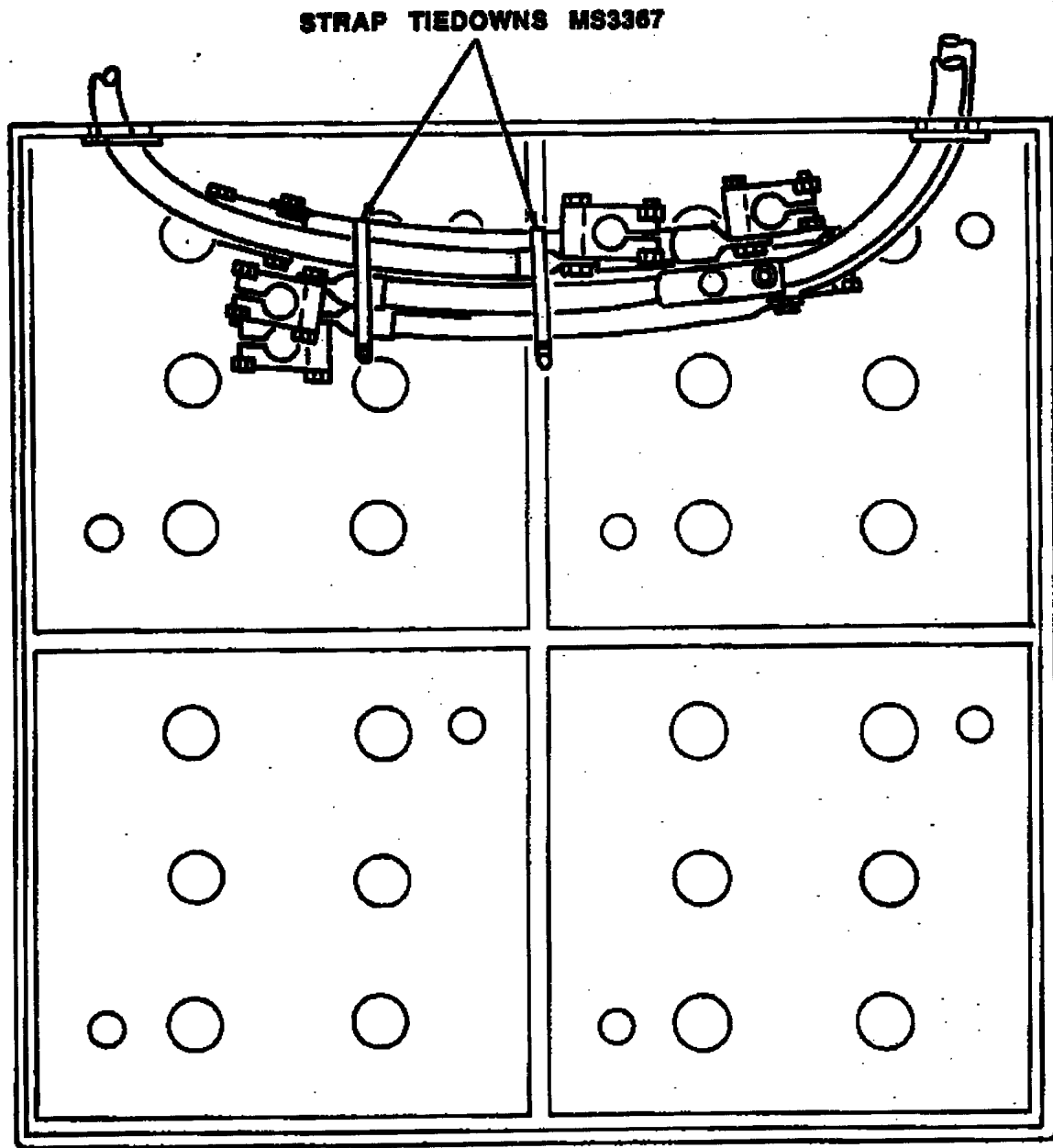
VIEW OF ENGINE COMPARTMENT WITH ACCESS GRILLES OPEN

FIGURE 9. Engine compartment and fuel filter location.



NOTE: RECOVERY CONTAINER CAN BE PLACED ON WINDSHIELD PROTECTIVE COVER DURING FUEL SYSTEM PRESERVATION.

FIGURE 10. Preservative recovery line.



TOP VIEW OF VEHICLE BATTERY BOX.

FIGURE 11. Battery terminal restraint.

ATPD 2233

Custodian:
Army - AT

Preparing Activity:
Army - AT

(Project PACK-A416)